

ORIGINAL

5327

5327

Form 504  
Ed. June, 1928

DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY  
R. S. Patton Director

State: Maryland

**DESCRIPTIVE REPORT**

~~Topographic~~ } Sheet No. 1 5327  
Hydrographic

LOCALITY

East CHESAPEAKE BAY

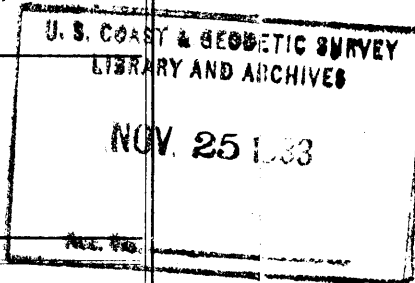
Knapp's Narrows to Bloody

Point Bar Light.

19 33

CHIEF OF PARTY

E. R. McCarthy



DEPARTMENT OF COMMERCE  
U. S. COAST AND GEODETIC SURVEY

U. S. COAST & GEODETIC SURVEY  
LIBRARY AND ARCHIVES

NOV 25 1933

REG. NO. 5327

Acc. No. \_\_\_\_\_

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 1

REGISTER NO. **5327**

State Maryland

General locality Chesapeake Bay

Locality Knapp's Narrows to Bloody Point Bar Light

Scale 1:10000 Date of survey Sept. 29, to Nov. 19, 1933

Vessel Shore Party

Chief of Party E. R. McCarthy

Surveyed by E. R. McCarthy and R. A. Philleo

Protracted by A. G. Turner and R. A. Philleo

Soundings penciled by A. G. Turner, R. A. Philleo, E. W. Smith

Soundings in ~~fathoms~~ feet

Plane of reference Mean Low Water

Subdivision of wire dragged areas by 1

Inked by R. E. DeWent

Verified by W. H. Bamford

Instructions dated August 12, 1933

Remarks: \_\_\_\_\_



DESCRIPTIVE REPORT TO ACCOMPANY HYDROGRAPHIC SHEET NO. "1"

Authority:

Instructions from The Director dated August 12, 1933.  
Original instructions for J.A. Bond dated May 10, 1933.

Limits:

Harbor Cove to 0.6 mile south of Knapps Narrows to 4.0 miles West of Pawpaw Pt. to Bloody Pt. Bar Light House.

Methods:

Positions were located by the usual three-point sextant fixes on objects located by triangulation and topography. Soundings were taken with a lead line graduated in fathoms and feet in depths over two fathoms, and with a sounding pole graduated in feet and half-feet for depths below two fathoms.

Equipment:

A hired launch, the NANUK, was used for all hydrography except the inshore work which was done with an outboard motor on a specially fitted skiff.

Discrepancies:

The soundings crossed very well, the largest difference being 1 foot.

Dangers:

A large barge grounded in 5 feet of water in Lat. 38-42(1092), Long. 76-21(170). This barge drifted on the ground during the month of September and apparently has grounded permanently as several high waters have failed to float it.

Channels:

A narrow channel kept open by the boats using it leads into Knapps Narrows from the beacon. This channel is but slightly deeper than the general depths, and has about  $1\frac{1}{2}$  feet of water at mean low water. This channel is used only by small fishing boats, and is marked by brush stakes on the south side. ✓

A channel with a least depth of 6 feet leads to the wharf in Ferry Cove from the beacon. The best water is to the south of the beacon. Least depth of  $6\frac{1}{2}$  feet was obtained by the skiff on "c" day, and "f" day (position 82). This channel is used only by oyster boats drawing from 3 to 4 feet. ✓

A channel with a least depth of  $5\frac{1}{2}$  feet leads into Poplar Island Pot. This harbor is used only by small craft seldom drawing over 3 feet. The center line of the channel is about 380 meters north of the northerly point of Coaches Neck. ✓

POST-OFFICE ADDRESS:

TELEGRAPH ADDRESS:

EXPRESS ADDRESS:

**DEPARTMENT OF COMMERCE**  
**U. S. COAST AND GEODETIC SURVEY**



A least depth of 9 feet may be carried through Poplar Island Narrows. The channel is narrow and requires considerable local knowledge to navigate. A boat of over seven feet draft should not attempt the channel as the bottom is lumpy. This channel is seldom used by local craft drawing over 4 feet.

*middle ground shows 6 feet.*

Comparison with previous surveys:

This sheet was compared with sheet 2631, and the following differences noted:

Latitude 38-46.9 Longitude 76-24.0

A 16 foot shoal is shown here. This was investigated and the least depth obtained in the vicinity was 19 feet on Position 130 i and 166 r.

*18 1/2 on 97 t plotted as 18*

Latitude 38-46.8 Longitude 76-24.2

A 16 foot shoal is shown here. This was investigated and the least depth obtained was 19 feet on Position 120 j and 99 t.

Latitude 38-46.3 Longitude 76-24.0

A shoal with a least depth of 13 feet is shown in this vicinity. The least depth obtained was 13 feet on Position 137 i. It extends about 0.3 mile to the westward and has several 13 1/2 feet depths.

Latitude 38-47.1 Longitude 76-23.2

A shoal with a least depth of 14 1/2 feet is shown here. This was investigated and the least depth obtained was 14 1/2 feet on Positions 139-40 f and 75-76 t; 41-42 l; 77-78 t; 55-6 l.

Latitude 38-45.5 Longitude 76-24.5

A shoal with a least depth of 10 1/2 feet is shown here. This was investigated and found to be a bar with a least depth of 11 1/2 feet extending for about 0.8 mile in a North Northwesterly direction. Over the remainder of the sheet the depth curves check quite closely with the original work.

This sheet was also compared with sheet 2464 and the following differences noted:

Latitude 38-48.7 Longitude 76-20.9

A shoal with a least depth of 18 feet is shown here. This was investigated and the least depth obtained was 21 feet on Position 55-8 u.

Latitude 38-48.5 Longitude 76-20.7

A shoal with a least depth of 18 feet is shown here. This was investigated and a least depth of 18 1/2 feet obtained on 34-6 j.

Latitude 38-48.0 Longitude 76-23.6

This shoal was on the edge on the sheet. The least depth obtained was 30 feet on 119-22 t.



Latitude 38-47.9 ✓

Longitude 76-23.1 ✓

A shoal with a least depth of 29 feet is shown here. The least depth obtained was  $29\frac{1}{2}$  feet on Position 108 t. ✓

Latitude 38-47.4 ✓

Longitude 76-22.3 ✓

A shoal with a least depth of 6 feet is shown here. This was investigated and the least depth obtained was 7 feet on Position 78-9 i and 174 r. ✓

Latitude 38-47.4 ✓

Longitude 76-21.6 ✓

A shoal with a least depth of 6 feet is shown here. This was investigated and least depth found was 7 feet on Position 170-1 b<sub>4</sub> and 192-3 q. ✓

Latitude 38-47.2 ✓

Longitude 76-20.2 ✓

A shoal with a least depth of 6 feet is shown here. This was investigated and least depth found was  $7\frac{1}{2}$  feet on Position 33 l. ✓

Latitude 38-47.7 ✓

Longitude 76-20.7 ✓

A shoal with a least depth of 18 feet is shown here. This was investigated and least depth found was 19 feet on Position 20 i. ✓

Latitude 38-47.6 ✓

Longitude 76-19.6 ✓

A shoal with a least depth of 6 feet is shown here. This was investigated and the least depth obtained was  $7\frac{1}{2}$  feet on Position 33-4 u. ✓  
*6 feet on 28 n*

Latitude 38-46.9 ✓

Longitude 76-23.3 ✓

A shoal with a least depth of  $13\frac{1}{2}$  feet is shown here. This was investigated and the least depth obtained was  $14\frac{1}{2}$  feet on Position 139-40 f; 41-2 l; 73-8 t. This shoal has several high spots due to oyster dredging. ✓

Latitude 38-46.1 ✓

Longitude 76-20.2 ✓

A shoal with a least depth of 6 feet is shown here. A least depth of 6 feet was obtained on 3-4 m. This is an extremely small shoal. ✓

Latitude 38-45.7 ✓

Longitude 76-21.6 ✓

A least depth of  $8\frac{1}{4}$  feet is shown here. This was investigated and a least depth of  $8\frac{1}{2}$  feet obtained on Position 136-7 d. ✓

Latitude 38-45.2 ✓

Longitude 76-21.3 ✓

A least depth of 5 feet is shown here. This was investigated and the shoalest depth obtained in this location was  $8\frac{1}{2}$  feet on Position 63-4 g. The bottom here is quite irregular, as a second  $8\frac{1}{2}$  foot point is located 0.1 mile to the eastward (Position 80-1 c), a third 8 foot point 0.1 mile to the south east, and a fourth  $8\frac{1}{2}$  foot point 0.2 mile to the eastward. ✓

*6 1/2 ft on 82-83 c, 0.1 mile N'ad.*



Comparison with previous surveys:

Latitude 38-44.9 Longitude 76-21.2 ✓✓

A shoal with a least depth of ten (10') feet is shown here. This was investigated and the least depth obtained was ten and one-half (10- $\frac{1}{2}$ ') feet, on Position 7t. ✓

Latitude 38-44.4 Longitude 76-21.3 ✓✓

No shoal was shown here. A number of three and one-half (3- $\frac{1}{2}$ ') feet spots in general depths of four (4') feet were obtained in this area. ✓

Shoals not on previous surveys:

Latitude 38-46.9 Longitude 76-24.1 ✓✓

A shoal with a least depth of eighteen and one-half (18- $\frac{1}{2}$ ') was located here, on position 97r. ✓

Latitude 38-46.8 Longitude 76-21.3 ✓✓

There are several nineteen (19') feet spots in this area, none of which were investigated as the bottom was irregular. ✓

Latitude 38-45.2 Longitude 76-23.8 ✓✓

A least depth of five and one-half (5- $\frac{1}{2}$ ') feet was located here. The general depths are six (6') feet. This area was not developed on the 1900 work. ✓

Latitude 38-45.4 Longitude 76-21.2 ✓✓

A shoal with a least depth of six and one-half (6- $\frac{1}{2}$ ') is located here. General depths are seven (7') feet. ✓

Latitude 38-44.8 Longitude 76-20.8 ✓✓

A number of shoal spots were located in this vicinity. As a rule these are one-half ( $\frac{1}{2}$ ') foot less than the general depths. ✓

Latitude 38-44.3 Longitude 76-20.8 ✓✓

A three and one-half (3- $\frac{1}{2}$ ') foot shoal, located on positions 7-9g were located here. General depths are 4-5 feet. ✓

Latitude 38-44.1 Longitude 76-21.1 ✓✓

A shoal with a least depth of five and one-half (5- $\frac{1}{2}$ ') feet is located here, on positions 23-9 g and 11-12c. General depths are 7-8 feet. ✓

Latitude 38-43.8 Longitude 76-21.0 ✓✓

A shoal with a least depth of seven (7') feet is located here, shown on positions 72-3c. General depths are 8 to 10 feet, and the bottom is ragged. ✓

Latitude 38-43.8 Longitude 76-23.8 ✓✓

A shoal with a least depth of (29') was located here, shown on positions 193g--and 167-77 p. General depths are 31 to 33 feet. ✓



Records:

A number of soundings erroneously placed in the record due to either the leadsman's or recorder's error were investigated and disproved. These are explained in the record. ✓

Landmarks:

A list of landmarks are submitted with the topographic sheet for this area. ✓

Names:

Names are shown on the topographic sheet for this area. ✓

Miscellaneous:

Statistics and tidal notes are attached.

No cross lines were run.

A Federal allotment has been made to dredge Knapps Narrows to a depth of nine (9') feet and a width of seventy (70') feet. The allotment is contingent on the willingness of the State of Maryland to build a drawbridge. To date no action has been taken by the State.

Respectfully submitted:

*ER Mc Cartley*

Hydrographer.

Forwarded approved:

*ER Mc Cartley*

Chief of Party.

*Applied to new chart 550  
Oct 1934 H.C.*

## STATISTICS- HYDROGRAPHIC SHEET NO. 1

LAUNCH- NANUK

DAY	DATE	BOAT	MILES (STATUTE)	SOUNDINGS	POSITIONS	TOTAL MILES FOR DAY
a	9-29-33	Nanuk	17.2	353	79	25.1
b	10- 2-33	"	11.3	455	77	16.8
c	10- 3-33	"	28.2	1034	190	30.0
d	10- 4-33	"	27.9	1055	184	36.6
e	10- 5-33	"	30.4	1181	204	35.1
f	10- 6-33	"	28.9	1099	201	34.8
g	10- 7-33	"	29.2	1030	198	37.9
h	10- 9-33	"	27.4	1016	189	33.4
i	10-10-33	"	23.0	837	164	33.7
j	10-11-33	"	26.3	944	176	37.4
k	10-12-33	"	25.0	952	167	40.0
l	10-13-33	"	08.1	304	56	22.5
m	10-16-33	"	24.1	817	150	36.5
n	10-18-33	"	21.7	513	152	36.8
p	10-19-33	"	22.3	767	209	31.4
q	10-20-33	"	16.6	949	227	25.7
r	10-21-33	"	22.0	846	206	36.6
s	10-24-33	"	03.3	149	44	12.6
t	10-26-33	"	16.3	581	153	39.2
u	10-27-33	"	05.6	207	61	12.4
Totals			414.8	15089	3087	614.5
SUB-TOTAL v	11-19-33	"	0.7	21	8	13.5
GRAND-TOTAL			415.5	15110	3095	628.0

STATISTICS- HYDROGRAPHIC SHEET NO. 1

DAY	DATE	BOAT	MILES (STATUTE)	SOUNDINGS	POSITIONS	TOTAL MILES FOR DAY
<i>a</i>	10-12-33	Skiff	3.0	108	20	10.3
<i>b</i>	10-16-33	"	7.9	436	81	13.1
<i>c</i>	10-18-33	"	5.2	212	44	8.3
<i>d</i>	10-19-33	"	6.6	367	81	8.6
<i>e</i>	10-20-33	"	6.7	320	78	11.7
<i>f</i>	10-21-33	"	7.2	362	82	10.7
<i>g</i>	10-26-33	"	8.1	375	83	13.4
<i>h</i>	10-27-33	"	6.9	305	67	10.4
<i>j</i>	10-30-33	"	9.4	436	102	12.7
<i>k</i>	11- 3-33	"	4.9	226	53	7.0
TOTAL			65.9	3147	691	106.2
SUB-TOTAL {	11- 7-33	"	0.7	38	10	1.0
GRAND- TOTAL			66.6	3185	701	107.2



TIDAL NOTE TO ACCOMPANY HYDROGRAPHIC SHEET # 1

The automatic tide gauge established at Ferry Cove was used for the reduction of soundings for the entire sheet.

Position of the gauge is      Latitude    38-45.9

Longitude    76-19.8

Mean low water on the staff is 2.2 '.

The gauge clock stopped a number of times and the necessary tides were interpolated from the Thomas Point L.M. gauge established by the "Mikawae" party, in conjunction with the height on the Ferry Cove Gauge.

*ER Mc Carley*

Chief of Party.

Refer to No.--30-MDS

COPY

October 20, 1933.

To: Lieut. (j.g.) E.R. McCarthy,  
U.S. Coast & Geodetic Survey,  
Tilghman, Md.

From: The Director,  
U.S. Coast and Geodetic Survey,

Subject: Tide Data, Ferry Cove.

In compliance with the request contained in your letter of October 16, 1933, your tide records for Ferry Cove have been compared with simultaneous observations at Annapolis for the period September 27 to October 15, 1933.

The Plane of mean low water determined from this comparison for use in the reduction of soundings corresponds to a reading of 2.2 feet on the tide staff at Ferry Cove.

Signed--R.S. Patton  
Director.

December 5, 1933

Division of Hydrography and Topography:

Division of Charts:

Tide Reducers are approved in  
13 volumes of sounding records for

HYDROGRAPHIC SHEET 5327

Locality Knapp's Narrows to Bloody Point Bar Light, Chesapeake Bay, Md.

Chief of Party: E. R. McCarthy in 1933

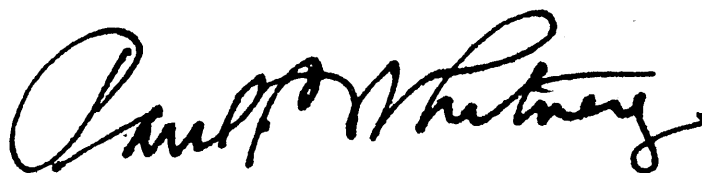
Plane of reference is mean low water, reading

2.2 ft. on tide staff at Ferry Cove

4.3 ft. below B. M. 1

Height of mean high water above plane of reference is 1.0 ft.

Condition of records satisfactory except as noted below:



Chief, Division of Tides and Currents

Field Records Section (Charts)

HYDROGRAPHIC SHEET No. 5327

The following statistics will be submitted with the  
cartographer's report on the sheet:

Number of positions on sheet	3796
Number of positions checked	48
Number of positions revised	3
Number of soundings recorded	18,295
Number of soundings revised	42
Number of signals erroneously plotted or transferred	0

Date: Feb. 9, 1934

Cartographer: R. C. DeMott



PARTIAL REPORT ON H5327

Dec. 14, 1933

1x/ The protracting was checked and found to be very well done - only three positions were found to have been plotted erroneously. These positions were changed.

2x/ It is noted that the degree and minute symbols for the parallels and meridians on this sheet were omitted by the field party.

minute numbers  
of parallels & meridians  
1933

3x/ It was noted that the shrinkage in the vicinity of Haddaway Cove Beacon was six meters per thousand.

4x/ Triangulation station

Haddaway Cove Bn (1909-1933) [on smooth sheet] was found to be identical with the triangulation station on topographic sheet number 4769 Ferry Cove Bn 1933.



5/ The topographic signal shown on the smooth sheet as  $\odot$  BEE (Poplar Island Narrows Bar) is identical with the topographic signal shown on topographic sheet No 4769 as  $\odot$  BEE (South Bar Bar.)

6/ It was noted that a number of geographical names shown on topographic sheet No. 4769 were at variance with the names shown on chart No. 77. The differences are noted as follows.

<u>Names on T #769</u>	<u>Names on Chart 77</u>
LOWES POINT	LOWS POINT
FERRY COVE	HADDAWAY COVE
GREEN MARSH POINT	GREAT MARSH POINT.

7/ The note stating the datum the sheet is referred to was omitted by the field party.

8/ The grounded barge at Lat.  $38^{\circ}42' + 1092m$  and Long  $76^{\circ}-21' + 170m$  was located by a three point fix found.



8 CONTD.

in the index of vol 9. It is noted that the barge was showing two feet above water at that time. As the reduction for tide eight minutes later was zero - the wreck is shown as being 2 ft at MLW.

9. A number of soundings were plotted to the nearest half foot - not in locations that fall within the category of "important points on navigable bars and critical places in channels" - These half foot soundings should not be inked by the office employee.

*A few of these also  
were inked which they  
affected depth curves  
Open*

Respectfully submitted

Warren H. Bamford



Section of Field Records  
Report on Hydrographic Sheet No 5327

Knap's Narrows to Slocody Point Bar Light

Surveyed in Sept 29, to Nov 19, 1933

Chief of Party - E. R. McCarthy  
Surveyed by - E. R. M.C. & R. M. Phillips  
Extracted by - M. S. Turner & R. M. P.  
Sounding plotted by - L. M. P. - M. S. T. & E. W. Smith  
Topography inked by - Field Party  
Verified & inked by - W. H. Sanford & R. E. Takemul

- 1 The records conform to the requirements of the Hydrographic Manual.
- 2 The sounding line crossings are adequate and in excellent agreement.
- 3 The 6, 12, 18, 30, 60 foot curves can be completely drawn. The zero curve is shown in a few places.
- 4 The field plotting was completed to the extent prescribed in the Hyd. Man. - with the following exceptions:



5 The following details were added by the office draftsman:

- (a) Degree and Minute Symbols ✓
- (b) Datum Note ✓
- (c) Name on O B C (Poplar Island Beacon) ✓
- (d) Hydrographic Station descriptions.) ✓

6 Satisfactory junctions are made on the North and North-west with H-5328 & 5237 resp.

7 Remarks

- (a) This sheet arrived in a very dirty condition, probably due to excessive or careless handling by the field party. Most of this dirt is unnecessary with damage to the plotted work.
- (b) Lat  $38^{\circ}-46.3'$ , Long  $76^{\circ}-23.1'$ . Two logs, mentioned in records, (Vol 9, pp 65 & 67) as 'passed log' are indicated on this sheet. These logs are probably drift wood, as they were dislodged from Poplar Island by the Sept. storms.

(c) Lat  $38^{\circ}-44.5'$ , Long  $76^{\circ}-23.3'$  - a 16' sounding  
(See records VI p 9, p 37 a (red)) was not  
inked. Rejected by field party.

(d) Lat  $38^{\circ}-48.8'$ , Long  $76^{\circ}-23.75'$  - a 23' sounding  
(See record VII p 51) was not inked - This  
sounding was disproved by later soundings -  
Rejected  
VI 10 p 34-35

(e) Considerable difference was noted in the  
Geographic names between the topo. sheet and  
~~the~~ chart 1225 and Geographic Survey maps  
of this area. The following names were  
not inked, pending approval or disapproval  
by the Geographic Board:

Frank Creek  
Green Marsh Pt.  
Goat. Pt.  
Coacher Neck  
Cobbler Neck  
Cabin Cove  
Ferry Cove  
Lawes Pt.  
Lawes Wharf

(F) This report is supplemented by that  
of Mr. Bamford.

8.

Respectfully Submitted

R. E. DeMent

Feb 9, 1934

SECTION OF FIELD RECORDS  
Review of Hydrographic Sheet No. 5327.  
Knapps Narrows to Bloody Point Bar Light, Chesapeake  
Bay, Maryland.

Surveyed Sept. - Nov. 1933.

Instructions dated May 10, 1933, MIKAWA, and Aug. 12, 1933, (McCARTHY)

Chief of Party - E. R. McCarthy.  
Surveyed by - E. R. McCarthy and R. A. Philleo.  
Protracted by - A. G. Turner and R. A. P.  
Soundings penciled by - A. G. T., R. A. P. and E. W. Smith.  
Verified by - W. H. Bamford.  
Inked by - R. E. DeMent.

1. The records conform to the requirements of the Hydrographic Manual.
2. The plan and extent of development conform to the regulations and satisfy the specific instructions except that no cross lines were run.
3. Soundings are consistent and no discrepancies are noted. Several logs are shown off the west coast of Poplar Island but the records do not indicate whether they are permanently bedded or temporary driftwood.
4. Depth curves can be drawn satisfactorily.
5. Junction with H. 5237 and H. 5328 to northward are satisfactory. No contemporary surveys extend to the south and west.
6. Comparison with H. 2464 (1899), H. 2631 (1902) and H. 2652 (1903) shows very good agreement in depths. From  $\frac{1}{2}$  to 1 foot deeper water was found over some of the shoaler areas than is shown on previous surveys. No evidence of the deep hole shown on H. 2464 between Poplar Island and Coaches Neck was found by this survey. Considerable change in inshore details is noted especially on the east coast of Poplar Island.

No new dangers to navigation have been located, except location of an abandoned barge which is shown by a wreck symbol just south of the surveyed area. This should be shown on Chart 1225. A number of names on Chart 1225 do not conform to local usage. Recommendation relative to these names has been made to the Board of Geographic names, see Descriptive Report T. 4769.

7. Field protracting and penciling of soundings was satisfactory. Degree and minute signs were omitted from the lat. and long. values; the minute values straddle the meridians instead of being to the right of the line. Datum note was added to the sheet in the office.

8. Recommendation. This sheet (H. 5327) should supersede all previous surveys for charting the area represented.

No further surveys are deemed necessary at this time.

9. Reviewed by - R. J. Christman, March 1, 1934.

Examined and approved:

*L. O. Colbert*  
L. O. Colbert,

Chief, Section of Field Records.

*J. B. Borden*  
Chief, Section of Field Work.

*W. H. Bamford*  
Chief, Division of Charts.

*J. H. Borden*  
Chief, Division of H. & T.

## NAUTICAL CHARTS BRANCH

SURVEY NO. 5327

## Record of Application to Charts

[illegible]

M-2168-1

**A basic hydrographic or topographic survey supersedes all information of like nature on the uncorrected chart. Give reasons for deviations, if any, from recommendations made under "Comparison with Charts" in the Review.**